ABSTRACT

Fixed volumes of samples are metered into the reaction channel of a microfluidic device using one or more slidable blocks having at least one fixed-length sample metering channel. In another aspect of the present invention, fixed volumes of samples are metered into the reaction channel using one or more slidable blocks having at least one fixed-length sample metering channel. In another aspect of the present invention, a sample injection scheme based on injection time is implemented using relatively sliding blocks of separation channels and sample channels. In a further aspect of the present invention, separation channels are configured in relation to the slidable block in a manner that enables separations to be conducted continuously for high-throughput assays.